

WHAT IS CLAIMED:

1. An anti-theft system for vehicles, said system comprising:
a first electronic control device, adapted to be mounted in a vehicle to be protected, for controlling continued operation of the vehicle after the vehicle is started, said first control device including a transmitter/receiver for, when the system is active, transmitting a characteristic signal; and
a second electronic control device adapted to be worn by a person authorized to use the vehicle and including a transmitter/receiver for receiving said characteristic signal and for transmitting a return signal to the transmitter/receiver of the first control device in response thereto;
said first electronic control device including a control circuit for calculating the distance between the first and second control devices based on the returned signal and for disabling vehicle operation when said distance is greater than a predetermined distance.
2. An anti-theft system according to claim 1 wherein said control circuit includes a relay, including relay contacts connected in the electrical system of the vehicle, for, when energized, opening said contacts to open the vehicle electrical system.
3. An anti-theft system according to claim 2 wherein said electrical system includes an ignition circuit and wherein said relay contacts are connected in the ignition circuit to control disconnection of the ignition circuit.
4. An anti-theft system according to claim 2 wherein said electrical system includes fuel injector control circuit and wherein said relay contacts are connected in said fuel injector control circuit so as to control operation of the vehicle fuel injectors.
5. An anti-theft system according to claim 2 wherein said electrical system includes a power supply circuit for the fuel supply system of the vehicle and wherein said relay contacts control opening of said power supply circuit.

6. An anti-theft system according to claim 1 wherein said second control device includes emergency shutoff means operable by the wearer of the second control device for, when activated, causing transmission of a cutoff signal to said first control device to effect cutoff of the vehicle operation.
7. An anti-theft system according to claim 1 wherein said second control device includes a battery-powered power supply having a predetermined operational lifetime and monitoring means for monitoring the hours of use of the power supply and for producing an alarm output when the hours of use approach said predetermined lifetime.
8. An anti-theft system according to claim 1 wherein said control circuit automatically resets the system to enable vehicle operation if the distance between the first control device on the vehicle and the second control device becomes less than said predetermined distance.
9. An anti-theft system according to claim 1 wherein said second control device includes control means operable by the wearer of the second control device for, when activated, disabling, after passage of a predetermined time period, the vehicle and all vehicle power options.
10. An anti-theft system according to claim 1 wherein said system includes an override function operable by the wearer of the second control device to enable operation of the vehicle when in park, the system providing for automatic disabling of at least one vehicle function when the vehicle is taken out of park and the vehicle is more than said predetermined distance from the second control device.
11. An anti-theft system according to claim 1 wherein control circuit further includes control means, remotely operable by the wearer of the second control device, for disabling at least one further electrically controlled onboard device when the vehicle operation is disabled.

12. An anti-theft system according to claim 11 wherein said at least one onboard device comprises at least one of vehicle communication equipment, a siren, an onboard computer and an electrically operated gun rack.

13. An anti-theft system according to claim 1 wherein said control circuit includes control means, remotely operable by the wearer of the second control device, for enabling at least one electrically controlled onboard device when the vehicle operation is enabled.

14. An anti-theft system according to claim 13 wherein said at least one onboard device comprises at least one of emergency light bars, emergency signaling device, a camera system, and a recording device.

15. An anti-theft system according to claim 1 wherein said characteristic signal and said return signal both comprise radio signals.

16. An anti-theft system according to claim 1 wherein said second control device is of a size and an outward appearance similar to that of a conventional pager device.

17. A system for preventing a vehicle protected by the system from being driven away by unauthorized persons, said system comprising:

a first electronic control device, adapted to be mounted in a vehicle to be protected, for controlling continued operation of the vehicle after the vehicle is started, said first control device including a transmitter/receiver for transmitting a characteristic radio frequency signal; and

a second electronic control device adapted to be worn by a person authorized to use the vehicle to be protected and including a transmitter/receiver for receiving said characteristic signal and for, in response thereto, immediately transmitting a return radio frequency signal to the transmitter/receiver of the first control device;

said first electronic control device including a control circuit for calculating the distance between the first and second control devices based on the returned signal and for disabling vehicle operation when said distance is greater than a predetermined distance, said control circuit also disabling vehicle operation when a return signal is not received from said second control device.

18. A system according to claim 17 wherein said control circuit includes a relay, including relay contacts connected in the electrical system of the vehicle, for, when energized, opening said contacts to open the vehicle electrical system.

19. A system according to claim 18 wherein said electrical system includes an ignition circuit and wherein said relay contacts are connected in the ignition circuit to control disconnection of the ignition circuit.

20. A system according to claim 18 wherein said electrical system includes fuel injector control circuit and wherein said relay contacts are connected in said fuel injector control circuit so as to control operation of the vehicle fuel injectors.

21. A system according to claim 18 wherein said electrical system includes a power supply circuit for the fuel supply system of the vehicle and wherein said relay contacts control opening of said power supply circuit.